Notebook Series -- Notebooks by Edison and Other Experimenters
Navy and Wartime Research Experiments
Notebook, N-17-02-06.1

This notebook was used during February 1917 by Edison, E. Rowland Dawson, and Absalom M. Kennedy for notes pertaining to Edison's work for the U.S. Navy during World War I. Also included are notes on recording experiments similar to the material in N-16-11-13 and N-17-01-06, Notebooks by Edison and Other Experimenters—Recorder and Recording Experiments—Miscellaneous Books. The book has been used in both directions. Taped between the inside front cover and the flyleaf are two pages of notes by Dawson on submarine signaling. These are followed by notes by Edison and Kennedy on experimental recordings and recorder tests. Following the recorder tests are notes by Dawson on "Submarine Night Visibility Tests" and on an "Extension Ladder to Waste Baskets" for use aboard ship. At the other end of the book are several pages by Dawson regarding a visit, ordered by Edison, to a doctor in New York City for eye tests. These tests were undertaken in connection with the search for methods of keeping the pupils of rangefinder users dilated for more sensitive night vision. Additional information on these night vision tests can be found in N-17-01-20, Notebooks by Edison. The pages are unnumbered. Approximately 30 pages have been used.

69550
Home Co.
MFG. STATIONERS,
96 JOHN ST
AND
19 PLATT ST.
NEW YORK.

Submarine Signal Co.

Receiving Apparatus consists of 2 tanks on fore part of vessel as far below water line as possible, one on port side, the other on starboard. Wires run to battery and thence to indicator box.

In each tank (16" × 32" × 8") are two microphones immersed in water, which receive sounds coming through water and striking sides of vessel.

Two telephone receivers, one for each side of vessel are used on Indicator.

Above used very extensively for fog signals. Bell struck by compressed air, heard 16 miles at British Naval test

Submarine Signal Co., Boston
+ 68 Broad St. New York -
Pamphlets on Submarine Signals
Allingham Wm - Submarine Signaling
Boggiano - An Italian paper
Estrada - a Spanish "
Fay N J W - Paper for Amer Inst Elec Engineers
Gilson HR - Article in Technology quarterly
Segrande - a French paper
Millet - Marine Engineer
Mundy - Triangular Location stuff
Packard of Boston - Paper
Schubig - a German paper
Talbot FA - London World's Work
U S Hydrographic Office paper 1909
Wolf - a German paper

SEXTET

Safronio a Baritone too low
Drapin too sluggish -
Dont bring out each
singer clear -
Too much confusion
in it - There is a
shaker in it,

BACH AIR

Base entirely too weak, tolerated dominate —
heard one 6Pub

FUNERAL MARCH
BEETHOVEN

Bubi – Base too
weak –
all too weak –

There is a high note
that I dont understand

PIANO TEST

a) Regular

No swell no overtones

b) Bottom Board replaced by cow hair.

No swell no overtones

TRUNION TEST

a) Tapered
(Tapered recorder also)

b) Straight
(Standard Recorder #100)

Very little difference —
Something wrong in
both —

RECORDER TESTS

100 - Standard

107 -

121 -

8 -

2 -

3 -

4 -

1 -

Make these tests 8 feet from the horn

RECORDER TESTS

7 -

5 -

(1)

Recorder E Head X
Voice Dawson

(2)

Recorder E Head C
Violin

③

Recorder & Heart
Piano

Recorder 5 – 1¼" Violin

1 Small tube

2 Regular 3/8" tube

3 1/2" tube

Ring B (5) Violin

(1) Head X - diminishing taper

(2) Head Y, Expanding taper

(3) Head Z Expanding rounded taper

Reorder tests at 6'

7 100

aZ

BZ

CZ

8 DZ

EZ

FZ

1Z

9 2Z

3Z

4Z

5Z

Reader Tests at 2'

(10) 100

1Z

2Z

3Z

(11) 5Z

6Z

AZ

BZ

(12) CZ

DZ

EZ

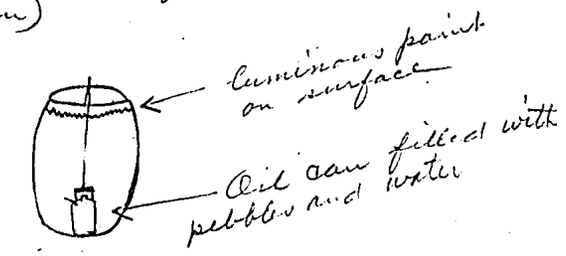
FZ

Submarine Night
Visability
Tests

Feb 6/17

Got empty oil bbl placed in open where sun could shine on it practically all day. Filled it with water and put in a pail of salt to prevent freezing. Got oil can, filled it with rocks and attached a wire

Put thin coating of luminous paint over top of water after submerging submarine (oil can)



Apparatus was not in position until 3 4/5 in afternoon and consequently had

only about 40 minutes of sunlight on it and the sun was rather weak at that.

After dark pulled the can up and as it was moonlight carried it into dark room.

The can should have been luminous but was not. I think probably because there had not been sufficient sun light on the barrel.

Feb 7/17

Re-immersed the can in same stuff and pulled up after dark with same result.

The day had been cloudy and some snow fell during the morning

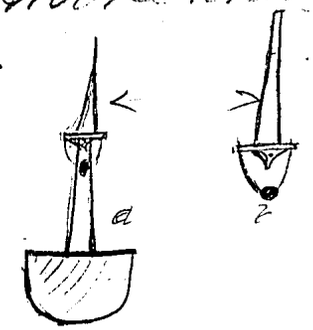
Feb 23/17

The barrel froze solidly on Feb 8 and has remained from ever since, in spite of the pail of salt put in to prevent freezing.

Feb 12/17

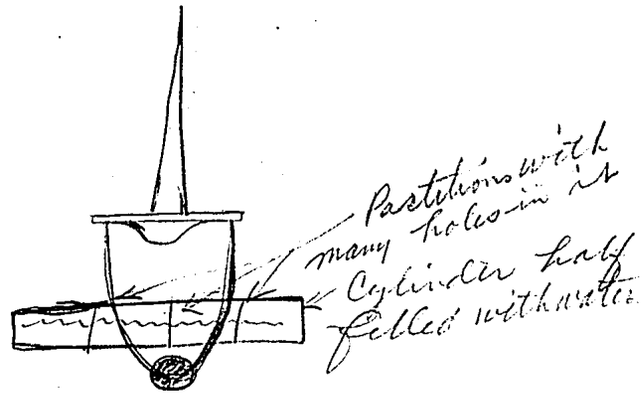
Extension Ladder to Waste Baskets

Small model constructed under Mr Kennedy's observation.



Result – Extension swung like pendulum after boat had ceased rocking. Ext swung much more than mast and we want in much less.

I suggested:



Stabilizer — When weight swing to left water will run, impeded more or less by partitions and counteract swing of weight. When it goes to right water will run to left and always try to keep extention on even keel

Mr Edison says it will work and he will try something of the sort

Eyè Tests

Feb 5/17

Under Mr Edison's orders went to

Robt G. Reese MD
50 West 52nd St

who examined my eyes and found homatropin + cocain tablets might be put into my eyes "with impunity"

To show me how, he put a tablet containing 1/50 gr Homatropin Hydrobrom 1/50 gr made by John Wyeth + Bro Phila in each of my eyes

After sitting half hour or so things began to blurr especially near at hand. In place of one hand at the end of an hour, I could see 3 attached to my right arm

Across the room things were not so bad but much less clear than normal. At the end of an hour he placed for 4 drops ¼ % solution of Essine (?) which contracts pupils and was intended to offset expansion caused by homatropin.

This should have brought eyes back to normal in 1½ to 2 hours but my pupils were very much dilated 4 hours later when we went into dark room at the lab. Mr Edison was therefore much at loss because I could not see better than those with normal eyes.

He decided the dose was too large and should be put in after pupils had been dilated naturally by being in dark room.

Feb 7

Mr Edison sent Avery and Reibert of the Storage Battery to Dr Reese to have eyes examined.

The following experiment was made with them:

10.05 Went into dark room sat in chairs 15 feet from desk on which cards with following figures in black were painted 5" high.

▲ 卐 ✠ ● ■

10.22 Avery sees ●
10.24 Reibert " ✠
10.25 " " ■
11.20 Both read all letters on opticians card used for testing eyes. Reibert reads 4th line of numbers on card and Avery 3rd line
11.50 Reibert sees ▲

12.05 One drop Homatropin (15 milograms Homatropin in 6 cc water) placed in each of Avery's eyes and one drop Cocain (4% solution) placed in each of Reiberts eyes, going into dull light just sufficient to see to put drops in while doing so. All returned immediately to dark room

12.40 Their vision of cards about the same as before putting drops in. Cards again given them for close reading. Reibert reads all letters and 5th line of numbers. Avery reads all letters and 3rd line of numbers. This means 1 line improvement for Reibert. Avery remains the same as before drops.

12.45 to 50 stood in doorway looking towards light then returned to dark room

1.00 A.M. Avery (Homatropin) reads all letters and one line lower than before on numerals Seibert didn't see quite so well. He read all letters but with more difficulty and didn't try numerals.

1.02 Went into strong light but were careful not to look at bulbs. Avery read ordinary print out of booklet. Seibert could not read it.

1.07 Went back into dark room, Avery within 30 sec read all but last line of letters. Then handed card to Seibert who couldn't see any letters.

1.15 Avery sees as well as before going into light. Seibert sees very little.